

DRAFT

**Runge Conservation
Nature Center**

Ten-Year Area Management Plan
FY 2017-2026



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OVERVIEW

- **Official Area Name:** Runge Conservation Nature Center, # 3600
- **Year of Initial Acquisition:** 1977
- **Acreage:** 112 acres
- **County:** Cole
- **Division with Administrative Responsibility:** Outreach and Education
- **Division with Maintenance Responsibility:** Design and Development
- **Statements of Purpose:**

A. Strategic Direction

The Runge Conservation Nature Center lands will be managed to provide safe, enjoyable, and varied opportunities for people of all ages and backgrounds to discover and experience nature.

B. Desired Future Condition

The desired future condition of Runge Conservation Nature Center is to provide quality examples of diverse natural communities that benefit a variety of wildlife species, provide enjoyable and safe natural experiences for the public, and support the Missouri Department of Conservation (the Department) interpretive educational program goals.

C. Federal Aid Statement

N/A

GENERAL INFORMATION AND CONDITIONS

I. Special Considerations

A. Priority Areas: None

B. Natural Areas: None

C. Other: Runge Conservation Nature Center is adjacent to the Conservation Commission Headquarters Complex.

II. Important Natural Features and Resources

A. Species of Conservation Concern: None observed.

B. Caves: None

C. Springs: None

III. Existing Infrastructure

- A nature center building (27,000 square feet) with 3,000 square feet of permanent exhibits, a 200-seat auditorium, three classrooms, indoor staging area, wildlife viewing area, lobby, gift shop, reception area, maintenance area, and staff offices. The building is American with Disabilities Act (ADA) accessible.
- Covered outdoor staging area with ADA-accessible restrooms and drinking fountains.

- Two outdoor heated storage buildings.
- Paved parking for 129 vehicles including 32 spaces in a gated overflow lot. In addition there are 15 employee parking spots and spaces for five busses.
- Five hiking trails, including two woodchipped and three hard surface trails, totaling 2.4 miles, including the Naturescape Trail (ADA accessible, 0.3 miles, Raccoon Run Trail (0.9 miles) and spur (0.1 miles), Towering Oak Trail (0.5 miles), Moss Rock Trace Trail (0.3 miles), and Bluestem Ridge Trail (0.3 miles).
- Fire tower used for historic interpretation.
- Six ponds (2 acres total), including three amphibian ponds, two small wildlife watering holes, and one pond that is stocked only for nature center programming.

IV. Area Restrictions or Limitations

- A. Deed Restrictions or Ownership Considerations:** Approximately 20 acres (East Tract) are located on the east side of Highway 179. This area does not have public access.
- B. Federal Interest:** Federal funds may be used in the management of this land. Fish and wildlife agencies may not allow recreational activities and related facilities that would interfere with the purpose for which the State is managing the land. Other uses may be acceptable and must be assessed in each specific situation.
- C. Easements:** There is a gas line that runs through the property. Ameren UE maintains a power line easement on the north side of the area, and the Missouri Department of Transportation maintains an easement along Highway 179.
- D. Cultural Resources Findings:** No known cultural resources.
- E. Endangered Species:** None observed.
- F. Boundary Issues:** Establishing accurate and identifiable boundary markers is a priority for this property.
- G. Other:** Many outdoor recreational activities are restricted at the nature center by the Wildlife Code due to the high volume of users. Visitors are asked to remain on the trails except by Special Use Permit. The collecting of natural items is prohibited to protect the area from overuse. Fishing and hunting are also prohibited without special use considerations.

MANAGEMENT CONSIDERATIONS

The Runge Conservation Nature Center is a small and heavily used conservation area located within the city limits of Jefferson City. The area opened in July 1993 and is located on 112 acres.

Because of high public use, decisions about area management are based first on visitor safety and second on protecting the resource. Management of the area requires extensive resources of personnel and equipment, which may interfere temporarily with public use and generate

questions or affect neighbors. The area provides a unique opportunity to educate the public about the role of conservation management for the benefit of both wildlife and people.

V. Terrestrial Resource Management Considerations

Existing open lands are remnants of pasture land that composed most of the area at the time of purchase. Aerial photographs of the area taken in 1960 show an open grazed pasture with scattered “wolf” trees. Since that time, most of the area has converted to woody species interlaced with old fields. All of the area’s open land habitats will include examples of how the Department promotes renovation, establishment, and maintenance of these open land types.

Challenges and Opportunities:

- 1) The area is located within the city limits of Jefferson City.
- 2) The area is connected to the Conservation Commission Headquarters office complex.
- 3) This area was farmed before purchase by the Department. Many of the areas are in successional stages due to prior farming.
- 4) This area is dissected by Highway 179.
- 5) Heavy public use may cause conflicts among users and natural resource management.
- 6) Many of the open areas contain invasive plants such as shrub honeysuckle and sercia lespedeza.
- 7) This area is made up mostly of transitional soils that are adaptable to both forest and grasslands. The area has a predominantly north and south aspect; so there should be no physical limitation to achieving the open land objectives.
- 8) Open land habitat represents an important part of the area utilized by wildlife.

Management Objective 1: Maintain healthy trees and woodlands with management emphasis on wildlife habitat and aesthetics.

Strategy 1: Monitor woodlands for invasive vegetation, diseases, and insects. Suppress any infestations that may develop. (Design and Development/Forestry)

Strategy 2: Retain and protect existing centennial oak trees by clearing undesirable trees and brush beneath the drip line. (Outreach and Education/Design and Development/Forestry)

Strategy 3: Assess hazardous trees close to the trails to determine if pruning or removal is needed for safety purposes. (Outreach and Education/Design and Development/Forestry)

Strategy 4: Improve, maintain, and expand all forested areas by thinning, prescribed fire, planting, or pruning as recommended by Forestry Division. (Design and Development/Forestry)

Strategy 5: Reduce cedar encroachment and replace with appropriate woodland trees and forbs. (Design and Development/Forestry)

Management Objective 2: Replace degraded woodland stand in the southwest corner of the property with a native oak-hickory type forest.

Strategy 1: Clear some of the downed and ice-damaged trees along with small cedars that have encroached on the area. Leave some downed trees for habitat for insects, cavity users, and their predators. (Design and Development/Forestry)

Strategy 2: Plant forestry-approved trees in the cleared area. (Design and Development/Forestry)

Strategy 3: Continue forest thinning and appropriate forest management as needed around the cut area. Prior to thinning, conduct a project forest inventory on the area to be thinned to learn composition, density, health, and age of tree species. (Forestry)

Strategy 4: Control problematic species such as bush honeysuckle and grape within the area. stand. (Design and Development)

Management Objective 3: Maintain a 29-acre tallgrass prairie/savanna complex.

Strategy 1: Manage by conducting prescribed burns every one to three years. (Design and Development/Forestry)

Strategy 2: Remove undesirable woody vegetation. (Design and Development)

Strategy 3: Broadcast native prairie plant seeds on burned or raked areas. (Outreach and Education/Design and Development)

Strategy 4: Remove and control invasive plants. (Design and Development)

Management Objective 4: Maintain and enlarge the glade area along Moss Rock Trace Trail.

Strategy 1: Use prescribed burning to burn through the glade every one to three years. This can be done at the same time the prairie is being burned. (Design and Development/Forestry)

Strategy 2: Thin cedar trees near the current glade to expand the glade into the surrounding landscape with eventual connection to a small glade on Towering Oak Trail. (Design and Development/Forestry)

Strategy 3: Broadcast native seed on the area and add plantings, such as prairie dock, that are specifically found in glade habitats. (Outreach and Education/Design and Development)

VI. Aquatic Resource Management Considerations

The stream resources at Runge Conservation Nature Center consist of approximately 0.6 miles of a first-order unnamed tributary of Wear's Creek. The tributary is intermittent and has a gradient of approximately 45 feet per mile. The nature center also has a small fishing pond (0.1 acre), five ephemeral ponds, and a small wetland.

Challenges and Opportunities:

- 1) Surrounding neighborhoods cause higher than normal nutrient runoff, which gets diverted into a small marsh area.
- 2) Utility lines along the creek prevent the planting of trees along part of the riparian corridor.

Management Objective 1: Maintain healthy aquatic habitats.

Strategy 1: Monitor the wetland areas for invasive species. Suppress any infestations that may develop. (Design and Development/Fisheries)

Strategy 2: Maintain a pond that demonstrates good examples of pond management techniques and provides for the education, use, and enjoyment of the pond by the public. (Fisheries)

Strategy 3: Maintain a quality population of fish to provide program opportunities for catch-and-release fishing by stocking 6-8" hybrid sunfish in the Raccoon Run Spur Pond, as needed. (Fisheries)

Strategy 4: Maintain five ephemeral pools for amphibians, reptiles, and aquatic invertebrates. (Design and Development)

Strategy 5: Monitor stream banks for accelerated erosion and stabilize banks as needed. (Design and Development)

Management Objective 2: Maintain a 0.27-acre wetland near the Wear's Creek tributary on the west side of the area.

Strategy 1: Provide for shallow water pre-emergent wetland. (Design and Development/Fisheries)

Strategy 2: Plant bald cypress trees and emphasize plants that characterize a cypress marsh in southeast Missouri for educational purposes. (Design and Development/Fisheries)

Strategy 3: Monitor the area for invasive species. Suppress any infestations that may develop using appropriate methods. (Design and Development/Fisheries)

Strategy 4: Plant and manage native plant species to promote wetland plant diversity. (Fisheries)

VII. Public Use Management Considerations

The primary purpose of the area is to provide a place for visitors to discover nature and learn about conservation through educational and interpretive opportunities. The focus of the nature center grounds is to provide a place where the public can view, learn about, and appreciate the variety of habitats found in Missouri and how these habitats are managed for forest, fish, and wildlife.

Runge Conservation Nature Center provides an inviting place for the public to discover nature. There are five nature trails totaling 2.4 miles. Three of these trails are paved and two have wood chipped surfaces. Staff provide interpretation along the trails, and interpretive trail maps are available for the public. Interpretive signs are located along the Naturescape Trail, providing information on landscaping for wildlife. The fire tower along the Raccoon Run Trail includes interpretive signs specific to the historical use of fire towers in Missouri. A large interpretive sign with a map of the entire area is located near the parking lot. Smaller trailhead signs are located at the entrance to each trail, including maps highlighting each trail. There are also signs located along the longer trails to highlight specific wildlife habitat.

Inside the building, there is a wildlife viewing area on the north side of the building that includes interpretation.

The East Tract has not been developed and currently provides no interpretive or recreational opportunities for the public due to closed access from Highway 179.

Challenges and Opportunities:

- 1) Provide wildlife viewing opportunities.
- 2) Provide educational and interpretive opportunities.
- 3) Build positive relationships with neighboring landowners.
- 4) High visitation increases maintenance issues that need immediate attention.
- 5) Provide an aesthetic connection using native plantings to the main entrance of the building.
- 6) Create an atmosphere of anticipation and connection to nature that reflects positively on the Department.

Management Objective 1: Provide public wildlife viewing opportunities.

Strategy 1: Conduct annual management activities that will provide habitat for a diversity of species. (Outreach and Education/Design and Development)

Strategy 2: Monitor white-tailed deer populations and consider proposing managed hunts as a tool to reduce deer-vehicle accidents and mitigate concerns of neighbors about deer numbers. (Wildlife)

Strategy 3: Maintain trails to allow public access to view wildlife and to connect with nature. (Outreach and Education/Design and Development)

Management Objective 2: Provide educational and interpretive opportunities.

Strategy 1: Communicate recreational opportunities to the public (e.g., brochures, Atlas database, newsletter, etc.). (Outreach and Education)

Strategy 2: Communicate to teachers, students, scout groups, and youth groups the uniqueness of the area to facilitate nature exploration. (Outreach and Education)

Strategy 3: Maintain area signs with current information about activities and opportunities. (Outreach and Education)

Strategy 4: Provide innovative ways of connecting people to nature using technology. (Outreach and Education)

Strategy 5: Continue to offer outdoor guided programming to organized groups, Discover Nature Schools, and the public. (Outreach and Education)

Strategy 6: Connect signage along trails with interpretive exhibits inside the facility to create a more uniform and cohesive nature experience. (Outreach and Education)

Strategy 7: Provide opportunity for the public to participate in management activities on the area. (Outreach and Education/Design and Development)

Management Objective 3: Facilitate a good working relationship with neighboring landowners.

Strategy 1: Work with neighbors to minimize any boundary, trespass, or any other issues affecting the Runge Conservation Nature Center or private property. (Design and Development)

Strategy 2: Promote habitat management on neighboring landowner properties. (Private Land Services)

Management Objective 4: Improve and open the view into the Runge Conservation Nature Center from Highway 179.

Strategy 1: Maintain native wildflower planting along the entrance to Highway 179. (Design and Development)

Strategy 2: Selectively clear vegetation along the Highway 179 right of way and plant native trees and shrubs to add emphasis and seasonal interest. (Design and Development)

Strategy 3: Investigate the addition of signage that can be seen by drivers along Highway 179 that will help with visibility and abide by the Missouri Department of Transportation's guidelines. (Outreach and Education/Design and Development)

Management Objective 5: Provide an aesthetically pleasing experience from the area entrance to the facility entrance.

Strategy 1: Continue to maintain parking lots so they appear to be part of the surrounding woods. Emphasize the use of native species that appear consistent with the site. (Design and Development)

Strategy 2: Continue to use native and/or cultivars of native plants to accentuate the walk from the parking lots to the main entrance and around the front of the building. (Outreach and Education/Design and Development)

Strategy 3: Aggressively manage weeds and plantings in this area to provide a more manicured landscape in order to meet people at their comfort level with regards to landscaping. (Outreach and Education/Design and Development)

Management Objective 6: Continue development of highly used and highly visible parts of the nature center grounds including the Naturescape Trail and the outdoor viewing area on the north side of the building. Maintain consistency with the interpretive objectives.

Strategy 1: Cut off the view into the service area to the east from the wildlife viewing area by adding native plantings. (Outreach and Education)

Strategy 2: Replace bird feeders and poles with new feeders and metal poles. Fix or replace the current feeding area microphones to ensure animal sounds and calls can be heard inside the building. (Outreach and Education)

Strategy 3: Redo plantings along the trail near the formal garden area to replace shrubs that have been removed. (Outreach and Education)

Strategy 4: Convert an area along the Naturescape Trail into a nature explore area and connect the area visually and physically to the landscaping around the front of the building. (Outreach and Education/Design and Development)

Strategy 5: Replace aged and faded signage along the Naturescape Trail. (Outreach and Education/Design and Development)

Strategy 6: Continue to enhance the Naturescape Trail entrance through native plantings. (Outreach and Education/Design and Development)

VIII. Administrative Considerations

Challenges and Opportunities:

- 1) Maintain area infrastructure at current levels.
- 2) There are limited opportunities for expansion.

Management Objective 1: Maintain area infrastructure at current levels.

Strategy 1: Maintain area infrastructure in accordance with Department guidelines and at currently identified maintenance level. (Design and Development)

Management Objective 2: Consider future use of the East Tract.

Strategy 1: Investigate possible uses and accessibility of the East Tract (Outreach and Education/Design and Development)

MANAGEMENT TIMETABLE

Strategies are considered ongoing unless listed in the following table:

[illegible]

APPENDICES

Area Background:

Land for the Runge Conservation Nature Center was purchased in two separate transactions. In 1977, 43 acres were bought from the Dulle family and, in 1978, another 63 acres were bought from St. Peter's Cemetery.

The first trail was built about 1983 and is currently the Raccoon Run/Bluestem Ridge Trail. About a year later, Highway 179 was built and dissected the area, and the trails had to be redesigned. The far west extension was done in 1986. The Woods Loop, currently Towering Oak Trail, was completed around 1989. The Moss Rock Trace Trail and the Naturescape Trail were completed in 1993, along with the opening of the Runge Conservation Nature Center building. An intensively managed Naturescape Trail, including examples of residential-scaled landscapes for native wildlife and plant demonstrations, was constructed in 1993. An overflow parking lot, located above the main lot to the south, was constructed in 1998. In 2000, a fire tower along with interpretive signage was added to the area for the purpose of interpreting the history of fire prevention in the state of Missouri. A bronze sculpture along with landscaping was added to the main entrance in 2011.

Current Land and Water Types:

Land/Water Type	Acres	Miles	% of Area
Woodland	93.8		84
Prairie	7.9		7
Facilities	4.4		4
Savanna	4.3		4
Wetland	1		1
Glade	0.3		<1
Pond	0.3		<1
Total	112		100
Stream Frontage		0.6	

Public Input Summary:

Prior to writing this draft area management plan, the Department conducted a public input process (the Runge Conservation Nature Center Idea Gathering Stage) from July 1-31, 2015. The objective of this phase was to inform stakeholders about the area planning process and ask them to share their ideas. To communicate about this comment period, staff:

- Posted an online comment form available at mdc.mo.gov/areaplans
- Sent news releases to local media outlets in early July and posted to Missouri Department of Conservation Facebook and Twitter accounts
- Sent an announcement to the area plan email list (of 4,000+ recipients)

- Included information in the nature center newsletter, *Habitat Happenings* (6,000+ mailed and ~5,000 sent digitally)
- Posted notices on bulletin boards in and around Runge Conservation Nature Center
- Conducted personal visits and sent mail and email to neighboring landowners, non-governmental organizations, and local government offices
- Provided a comment table with the opportunity to write hard copy comments
- Made personal contacts with visitors to the nature center

The Missouri Department of Conservation received input from 28 respondents (see “Runge Conservation Nature Center Idea Gathering Stage Public Input Summary” at <http://mdc.mo.gov/node/27589>). The area management planning team took comments into consideration as they drafted this 10-year management plan for the nature center. A brief summary of public input themes, including how they will be incorporated or why they will not be included, can be found in Appendix A.

Maps:

Figure 1: Area Map

Figure 2: Aerial Map

Figure 3: Topographic Map

Figure 4: Current Vegetation Map

Figure 5: Easement Map

Additional Appendices:

Appendix A: Department Responses to Public Comments – Runge Conservation Nature Center Idea Gathering Stage

Figure 1: Area Map

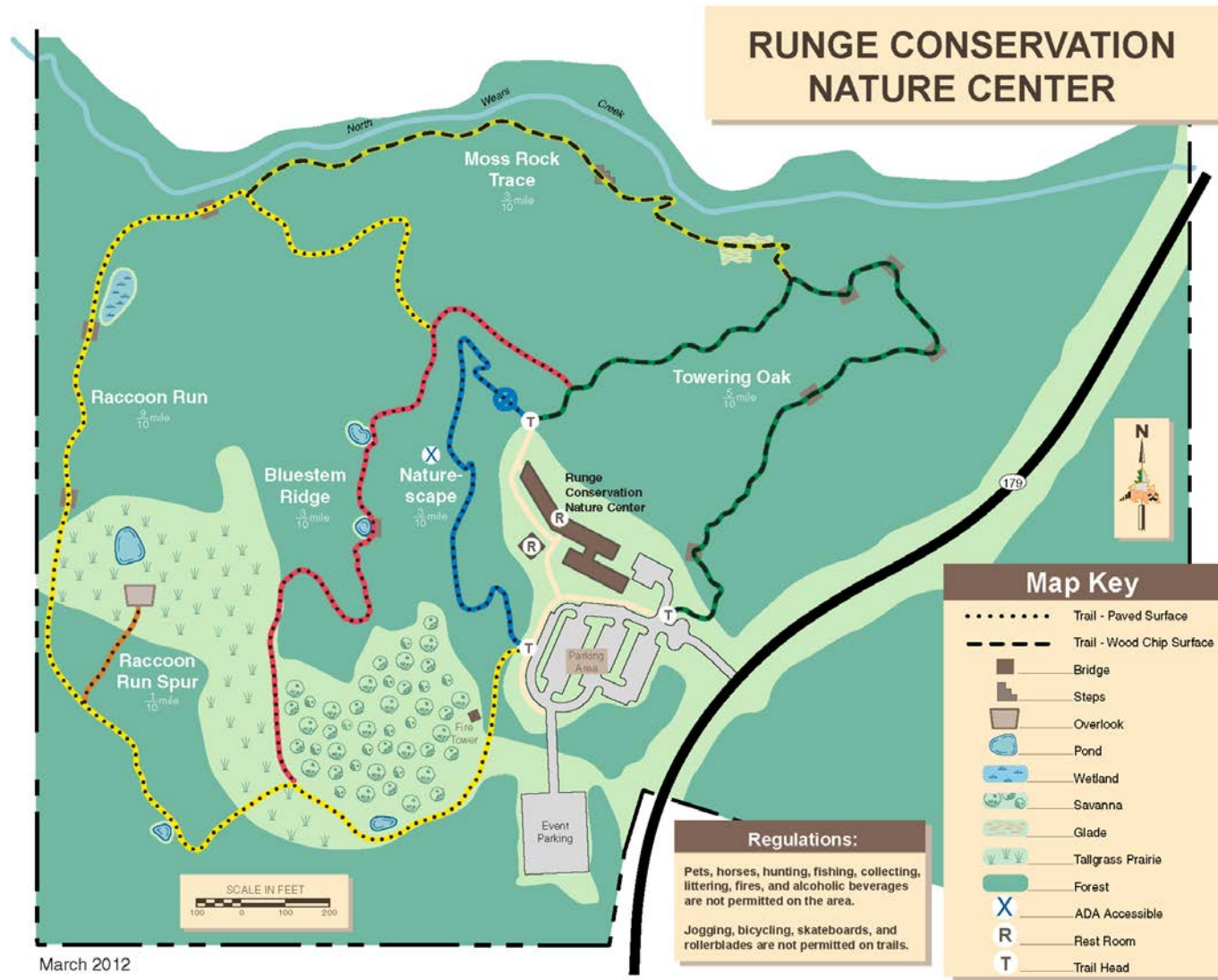


Figure 2: Aerial Map

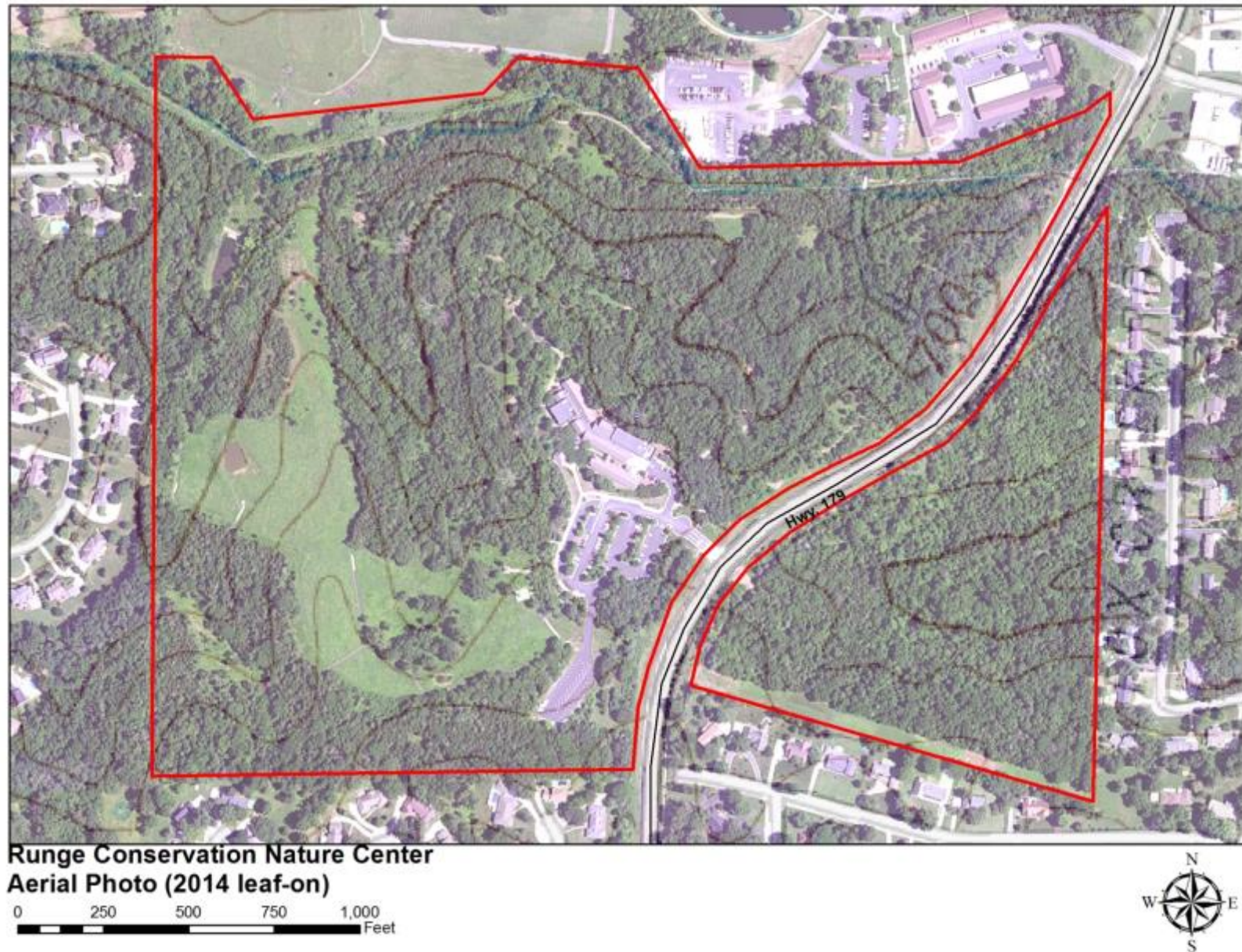


Figure 3: Topographic Map

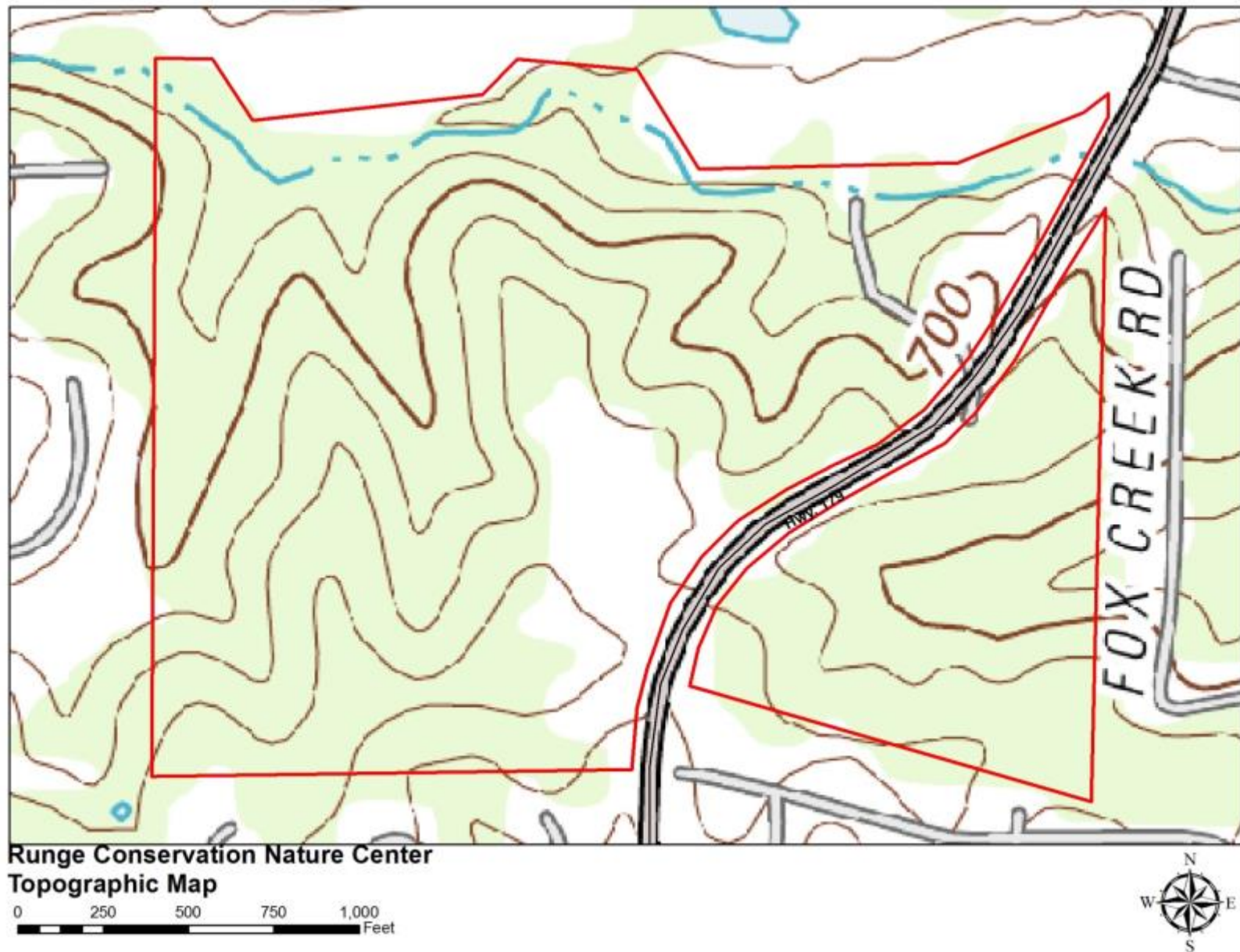
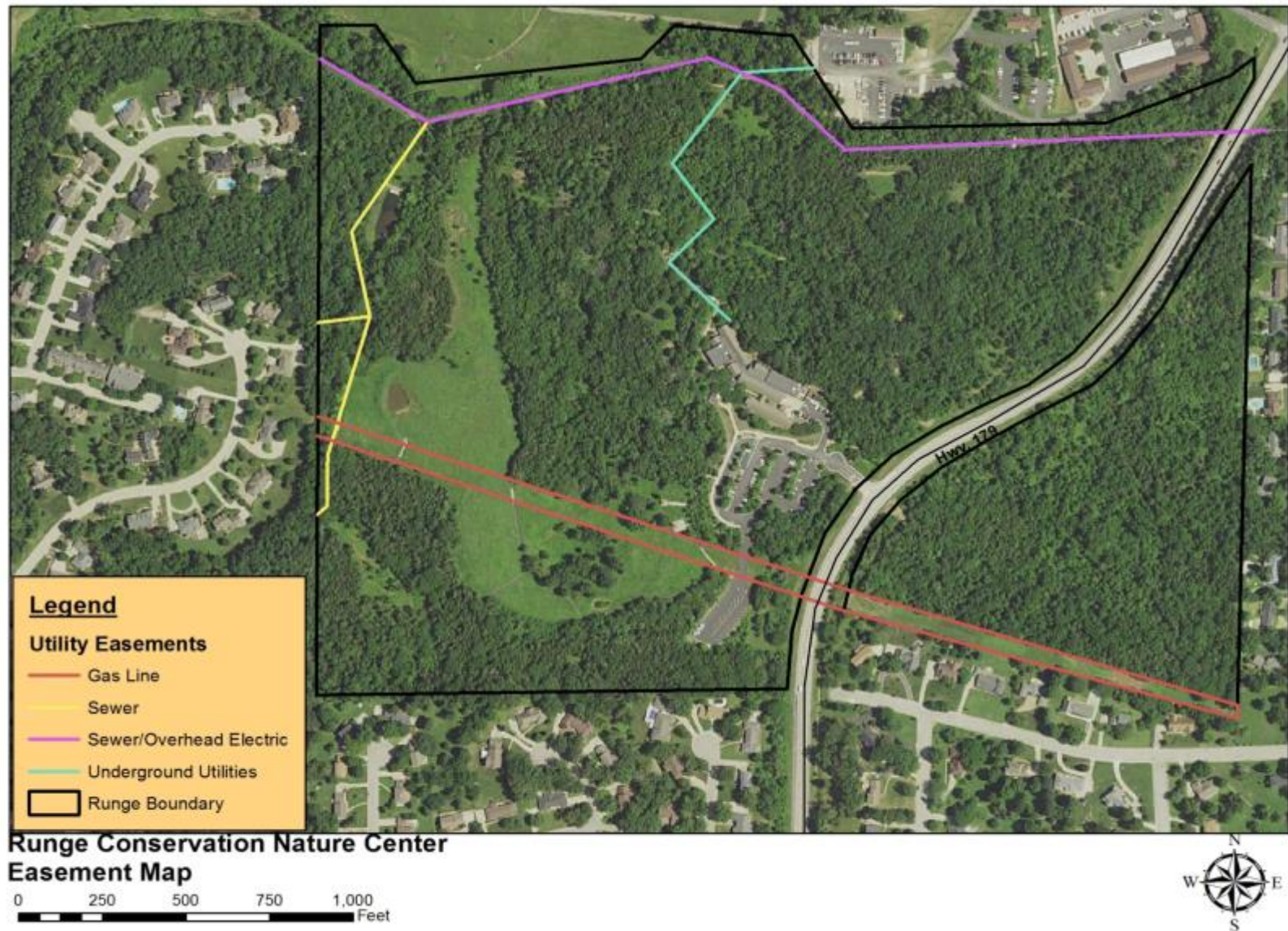


Figure 4: Current Vegetation Map



Figure 5: Easement Map



Appendix A: Department Responses to Public Comments – Runge Conservation Nature Center Idea Gathering Stage

Background:

Prior to writing the Draft Runge Conservation Nature Center 10-Year Area Management Plan, the Department conducted a public input process July 1-31, 2015, as described on page 13. Altogether, 28 comments were received. The area management planning team took comments into consideration as they drafted the plan. A brief summary of public input themes, including how they will be incorporated or why they will not be included, can be found below. Comments were grouped into general themes and addressed collectively.

Terrestrial Resource Management

Concerns with abundance of invasive plant species such as winter creeper, shrub honeysuckle, Japanese honeysuckle, garlic mustard.

The area planning team agrees with concerns and suggestions related to invasive plant species on the area. Currently, this is one of our top priorities on the site and will continue to be in the future. Efforts of eradication through spraying, physical pulling and bagging, the use of volunteer assistance, and other management efforts will continue to be utilized.

Public Use Management

We received several comments on programming at the nature center which the nature center staff appreciates and will utilize when updating the Runge Interpretive Plan. The area management team did not discuss educational or interpretive programming, but focused only on area management.

Trails

Suggests allowing pets on trails.

The area management team did not incorporate this suggestion into the plan. As is fitting with the Department's mission, the trails at the nature center were designed to provide opportunities for citizens to use, enjoy, and learn about the natural resources in Missouri. This is achieved through nature exploration done both formally through guided conservation programming and informally through personal exploration. The trails were purposefully designed to meander and provide unique views and opportunities for nature observation. Fortunately, there are many public areas close to the nature center that allow for running, bicycling, and pets.

Concern that some trails are deteriorating and should be more even.

The area management team realizes that trails are costly to maintain in both time and money. The trails at Runge Conservation Nature Center have been completely resurfaced once and are sealed periodically. This work is done on a statewide maintenance schedule. This suggestion will be moved forward to our Design and Development Division for consideration in future planning.

Suggests adding mileage markers along trails for walkers.

The area management team understands that our visitors enjoy the trails for nature as well as for exercise. Mileage has been added to all of the trailhead signs as well as to the area maps, which can be picked up inside the building. We will consider adding mileage to some of the signs on the area as they are replaced. We do not want to add more signs to the area so we can keep the area as natural as possible.

Appreciates paved trails.

We appreciate hearing that people enjoy having paved trails. Currently we have five trails. Three of them are paved and two are wood chipped. The team feels like this is appropriate for our audiences since some people prefer natural surface trails and some prefer hard surface trails.

Deer

Concern with too many deer in neighborhoods near Runge Conservation Nature Center. Deer are destroying plantings. Concern about hitting deer with cars.

We received a number of concerns related to an overabundance of deer on the Runge Conservation Nature Center. The area management team agrees that overpopulation of deer on the area is a concern. Deer populations will be monitored and discussed on an annual basis to determine management options. Options include having managed hunts on the area.

Suggests allowing archery hunting.

The area management team agrees that archery hunting may be needed as a population control for deer. If implemented, archery hunting would be conducted through a special managed hunt based on monitoring efforts on the area and would be evaluated on a yearly basis.

Suggests moving deer and other wildlife to other conservation areas.

While the area management team agrees that an overpopulation of deer is a concern, the team believes that the best management option would be a managed hunt rather than trapping and moving deer. Moving deer could easily have a negative impact on deer populations in other areas through both population levels and potential pathogen movement. In addition moved wildlife have a much lower rate of survival.

Concern for safety of pets with coyotes, foxes and other wildlife in nearby neighborhoods.

The area management team is focused on providing habitat for sustainable populations of wildlife. Wildlife are attracted to good habitat, but also to wildlife feeding stations and food plots, which many people in the neighborhood utilize. We do not allow pets on the area due to the effect pets can have on wildlife, including feral cats feeding on native birds which is a constant threat. People who are concerned for their pets should consider removing wildlife feeding stations even though pets being harmed by wildlife are not very common.

Suggests sharing information on plants that deer will not eat.

The area management team agrees that sharing information on plants deer will not eat is a good idea. This will be addressed through educational and interpretive programming and literature, but will not be included in the area management plan.

Other

Suggests developing outdoor play area for children.

The area management team agrees that this would be beneficial and work has already started on a Nature Explore Area along the Naturescape Trail.

Suggests larger housing for snapping turtle.

This suggestion was not discussed by the area management team since it refers to our building resources and will not be included in the area management plan. Nature center staff did follow-up on this with the state herpetologist who looked at the turtle housing and informed us the dimensions were larger than the recommended dimensions.

Suggests replacing camera and monitor at fire tower.

This suggestion was not in the realm of our area plan, but falls under the Runge Conservation Nature Center Interpretive Plan. The camera and monitor for the tower were removed because every time there was an electrical storm the camera was damaged and had to be replaced. The cost of replacing the camera became prohibitive.

Enjoys wildlife on and around the area.

The area management team appreciates this comment and will continue to manage for wildlife diversity on the area.

Administrative Considerations

Supports undeveloped area east of Highway 179 to remain undeveloped.

The area management team agrees with this suggestion at this time. The cost of providing access to the area prevents us from utilizing the acreage at this time.

Suggests raising funds to allow access and development of property east of Highway 179.

The area management team agrees this may be an option for the future, but is not a high priority at this time.

Appreciates Runge Conservation Nature Center, area staff, and volunteers.

This comment is greatly appreciated and will be relayed to the nature center staff and volunteers.

Suggests having building open seven days a week.

This was not discussed by the area plan team since it relates to the building and not the area. Due to loss of staff in 2010, all Department nature centers were mandated to close two days a week. If staffing increases in the future, this suggestion will be discussed.

Suggests large sign by road so don't miss entrance.

The area management team agrees that visibility is an issue for Runge Conservation Nature Center, but would be better discussed as part of the interpretive plan. The Missouri Department of Transportation has highway right of way which causes limitations to roadway signage. This issue is being discussed in other plans and has been addressed in this plan.

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